

INVERTEBRATA PACIFICA

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NEUROPTEROID INSECTS

NOTES ON NEUROPTEROID INSECTS OF THE PACIFIC COAST OF NORTH AMERICA WITH DESCRIPTIONS OF NEW SPECIES BY NATHAN BANKS.

C. F. BAKER.

Through the kindness of Dr. Calvert and Mr. Banks I am able now to present the following preliminary report on the collections of Neuropteroid Insects brought together by me during my stay on the Pacific coast.

EPHEMERIDA

3122 *Callibaetis undata* Pict.

Occasional at Claremont, California. Det. Banks.

2241 *Cleon* sp.

Taken in the mountains near Claremont, California. Det. Banks.

2242 *Heptagenia* n. sp.

A common form in the mountains near Claremont, California, in the Springtime, dancing in the sunbeams where they break through the thick vegetation of the deep rich gulches.

ODONATA

1549 *Hetaerina americana* Fab. race *californica* Hag.

Occasional at Claremont, California. Det. Calvert.

1255 and 565 **Ischnura perparva** Selys.

Common about Lagunita at Stanford University, California. Det. Calvert.

1550 **Ischnura ramburi** Selys var. **credula** Hag.

Occasional at Chinandega, Nicaragua. Det. Calvert.

1579 **Leptobasis vacillans** Selys.

Taken at Granada, Nicaragua, and also at Chinandega. Det. Calvert and Banks.

1256 **Ceratura capreola** Hag.

Several specimens were taken at Managua, Nicaragua. Det. Calvert.

586 and 566 **Enallagma carunculatum** Morse.

Common about Lagunita at Stanford University, California. Det. Calvert.

3419 **Enallagma calverti** Morse.

Occasional in Ormsby county, Nevada. Det. Calvert.

580 and 1260 **Argia puella** Hag.

Frequent at Chinandega, Nicaragua. Det. Calvert and Banks.

1547 **Argia vivida** Hag.

Common at Claremont, California. Det. Calvert.

587 **Lestes stulta** Hag.

Abundant about Lagunita at Stanford University, California. Det. Calvert and Banks.

3624 **Amphiagrion saucium** Burm. race **abbreviatum** Selys.

A large series taken at Pine Lake in Southern California by Mr. James Johnson. Det. Calvert.

1261 **Neoneura amelia** Calvert.

Occasional at Chinandega, Nicaragua. Det. Calvert.

1251 **Sympetrum pallipes** Hag.

Occasional at Stanford University, California. Det. Calvert.

1252 **Sympetrum illotum** Hag.

Occasional at Stanford University, California. Det. Calvert.

1546 **Libellula saturata** Uhler.

Common about Lagunita at Stanford University, California, and at Claremont. Det. Calvert.

584 **Mesothemis corrupta** Hag.

Frequent at Stanford University, California. Det. Calvert and Banks.

1253 **Trithemis funerea** Hag.

Occasional at Stanford University, California. Det. Calvert.

1545 **Paltothermis lineatipes** Karsch.

Occasional at Claremont, California. "Not hitherto been found in California, although it is known from Arizona and Texas. It was originally described from Brazil and subsequently recorded from Mexico and Venezuela". (Calvert).

1544 **Tramea lacerata** Hag.

Occasional at Claremont, California. Det. Calvert.

1543 **Aeschna multicolor** Hag.

Frequent at Claremont, California, and in Ormsby county, Nevada. Det. Calvert.

PLECOPTERA

2221 **Perla californica** Banks n. sp.

"Head brown, pale reddish yellow between ocelli and on the clypeus; antennae pale brown; prothorax brown, with a trace of paler median line, rest of thorax dark brown, with a pale median stripe; abdomen pale brown; tibiae paler, with a blackish band on base; setae yellowish brown. Wings nearly hyaline, venation pale brownish; ventral plate of female pale, with a prominent, rounded blackish spot each side. Pronotum plainly broader than long, anterior angles acute, posterior ones slightly rounded. Structure similar to *P. lycorias*. Length 30 mm. Claremont, California.

Readily separated from its allies by the two black spots on ventral plate."

3395 **Nemoura depressa** Banks.

Taken at light in Claremont, California. Det. Banks.

3397 and 3398 **Tinodes consueta** McLach.

Occasional at Claremont, California. Det. Banks.

3115 **Sialis infumata** Newm.

Two specimens taken at Claremont, California. Det. Banks.

ISOPTERA

112 **Termopsis angusticollis** Wlk.

Workers and winged males common in old logs at Claremont, California, and in Ormsby county, Nevada. Det. Banks.

CORRODENTIA

2 **Elipsocus** n. sp.?

Taken in great numbers from evergreen oaks very early in Spring at Stanford University, California. Det. Banks.

3. **Caecilius** sp. perhaps *aurantiacus*.

Occasional at Stanford University, California. Det. Banks.

3128 **Caecilius** sp.

Frequent on oaks at Claremont, California. Det. Banks.

3125 **Psocus** sp.

Occasional at Claremont, California. Det. Banks.

3130 **Psocus californicus** Banks.

Occasional at Claremont, California, but more common in the nearby mountains. Det. Banks.

3127 **Peripsocus californicus** Banks.

Occasional at Stanford University, California. Det. Banks.

NEUROPTERA S. STR.

All of the species cited under this head have been determined by Mr. Banks.

573 **Raphidia oblita** Hag.

Common at Stanford University, California.

8 **Raphidia bicolor** Alb.

Common in Ormsby county, Nevada.

2222 **Raphidia adnixa** Hag.

Common in Ormsby county, Nevada. Found also at Stanford University, California.

2126 **Raphidia occulta** Banks.

Common at Claremont California and in the nearby mountains.

3426 **Mantispa brevicollis** Banks.

Taken in Ormsby county, Nevada.

574 **Mantispa viridis** Wlk.

Occasional at Granada, Nicaragua.

7 **Chrysopa fraterna** Banks.

Common in Ormsby county, Nevada.

4 **Chrysopa californica** Coq.

Common in Ormsby county, Nevada and at Stanford University, California.

3117 **Chrysopa externa** Hag.

Common at Claremont, California, and in the nearby mountains.

3120 **Chrysopa bimaculata** McClendon.

Occasional at Chinandega, Nicaragua.

3402 **Chrysopa ruflabris** Burm.

Taken at Elsinore, San Bernardino county, California.

3392 to 3394 **Chrysopa coloradensis** Banks.

Collected in Ormsby county, Nevada and also in the mountains near Claremont, California.

3399 **Eremochrysa fraterna** Banks.

Taken at Pine Lake, Southern California, by James D. Johnson, a former student of mine.

11 **Brachynemurus peregrinus** Hag.

Common in Ormsby county, Nevada.

10 **Brachynemurus ferox** Walk.

Frequent in Ormsby county, Nevada.

2232 **Brachynemurus longipalpis** Hag.

Occasional at Claremont, California.

2230 **Brachynemurus Sackeni** Hag.

Occasional at Claremont, California.

2233 **Brachynemurus papago** Currie.

Occasional at Claremont, California.

576 **Ascalaphus tuberculatus** Banks.

Frequent near the Indian pueblo of San Marcos in Western Nicaragua.

3405 **Polystoechotes punctatus** Fabr.

Mr. Culbertson, a former student of mine, took several specimens of this species at Three Rivers, California.

4035 **Berotha occidentalis** Banks n. sp.

"Face yellowish; vertex brown: antennae pale yellowish: thorax brown, rather densely clothed with brown bristles; abdomen pale brown, more yellowish on the base, legs very pale, clothed with gray hair and black bristles; wings tinted with brown, venation brown, there are many scattered round brown spots, each centered upon a vein. Along the costal area are several large dark brown spots, and the pterostigma quite dark brown; the apical margin is brown interrupted with white, gradate veinlets and the basal cross veinlets heavily dark brown. Hind wings hyaline, pterostigma brownish, and the cross vein below it margined with brown. The wings are of the usual shape, but the outer margin is evenly and deeply concave, not all sinuate; there are five branches of the radial sector, and the latter is connected to the radius by a cross vein near the middle of the wings. The male has at the tip of the abdomen a bristly style on each side. Length to tip of wings 12 mm.

Ormsby county, Nevada, July, Baker, and also at Phoenix, Arizona (another collector)."

3422 **Hemerobius coloradensis** Banks.

Occasional in Ormsby county, Nevada.

3423 **Hemerobius pacificus** Banks.

Occasional in Ormsby county, Nevada.

3424 **Hemerobius californicus** Banks.

Taken at Stanford University, California.

2336 **Hemerobius** n. sp.

Taken at Granada, Nicaragua.

2223 **Megalomus minor** Banks n. sp.

"Head pale yellowish, vertex with a dark median stripe. Antennae pale, rather darker beyond the middle, palpi pale yellowish. Thorax and abdomen dark brown; legs pale yellowish. Wings hyaline, venation pale, marked with brown, the longitudinal veins and costal veinlets interruptedly brown and yellowish; the gradate series nearly black and a black spot at anal angle, and a smaller one on cubitus toward the base; margin with alternate brown and white patches. Wings of usual shape; venation not as dense as in *M. moestus* and *M. latus*: five or six sectors; the first gradate series is very regular; the outer series but little curved. Length 6 mm.

Two specimens from San Marcos, Nicaragua, and one from Ormsby county, Nevada (Baker). Differs from *M. moestus* and *M. latus* in the smaller size, the dark stripe on vertex, and the less dense venation. *M. pictus* Hagen from Mexico is unknown to me, but is said to have the basal joints of the antennae black, which is not the case in the other three species."

3124 **Symphorobius angustus** Banks.

Occasional at Claremont, California.

3123 **Micromus variolosus** Hag.

Taken at Claremont, Los Angeles county, California.

3421 **Micromus montanus** Hag.

Occasional in Ormsby county, Nevada.

3403 **Maracandula bellula** Banks.

Collected for me at Three Rivers, California, by Mr. Culbertson.

575 **Myrmeleon rusticus** Hag.

Frequent at Granada, Nicaragua.

2228 **Myrmeleon distans** Banks.

Occasional at Claremont, California.

12 **Myrmeleon immaculatus** DeG. var **coloradensis** Banks.

Occasional in Ormsby county, Nevada.

MECOPTERA

583 **Bittacus apterus** McLachlan.

Frequent about Lagunita at Stanford University, California.

TRICHOPTERA

2235 **Leptocella** sp.

Occasional at Chinandega, Nicaragua.

577 **Chimarra** sp.

Taken at Chinandega, Nicaragua.

2237 **Rhyacophila coloradensis** Bank.

Occasional in the mountains near Claremont, California.

2234 **Hydropsyche** sp.

Taken at Chinandega, Nicaragua.

578 **Hydropsyche** sp.

Taken at Chinandega, Nicaragua.

3420 **Platyphylax** n. sp.

Occasional in Ormsby county, Nevada.
